

# Missouri Freight Transportation

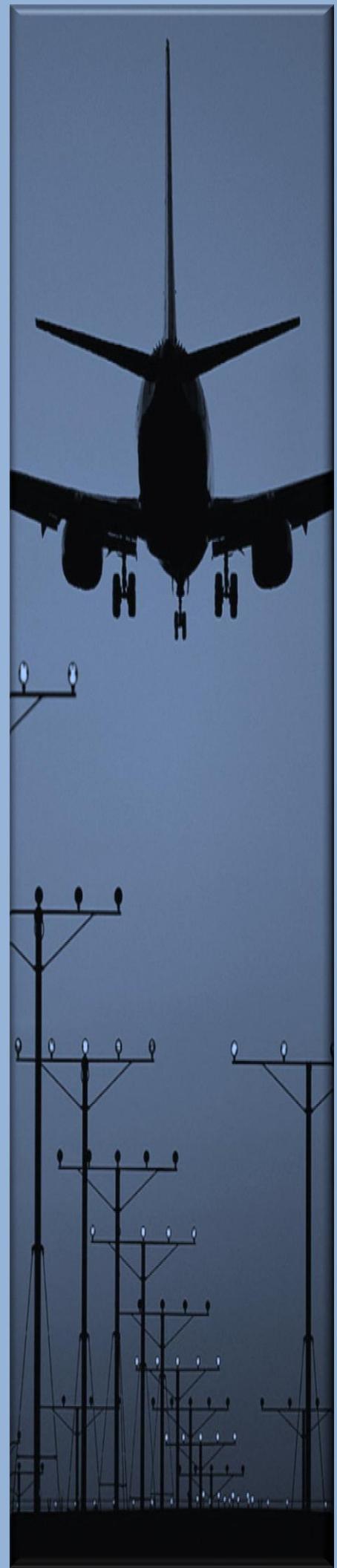
*Economy on the Move*

## Air Freight



## Air Freight Industry

Missouri is home to 500 aviation facilities, 2 international airports, 18 scheduled airlines, and over 51.6 million square feet of paved runway. Twenty five runways have a length greater than 5,000 feet. The air freight industry currently employs 3,883 workers in air freight transportation and support activities.



## An Economic Driver

The air freight industry employment has a large impact on Missouri's economy generating an estimated \$1.3 billion annually in Gross State Product, \$529 million in personal income and \$30.6 million in new net Missouri general revenues. The nearly 3,900 direct workers generate an estimated 8,900 indirect and induced spin-off jobs annually in Missouri through purchases of industry intermediate inputs and employee consumer spending.

## Commodity Flows

Shipment values and tonnage for all modes combined increased in Missouri by roughly 20% over the five years surveyed. Air shipments accounted for nearly 1% of the total value or an estimated \$1.2 billion. Pharmaceuticals, basic chemicals, and electronic products make up 83% of the total value of Missouri commodities shipped by air. Miscellaneous manufactured products, articles of base metal, and chemical products make up 11% of the total tonnage shipped from Missouri.

## Trends in Air Shipments 2002-2007

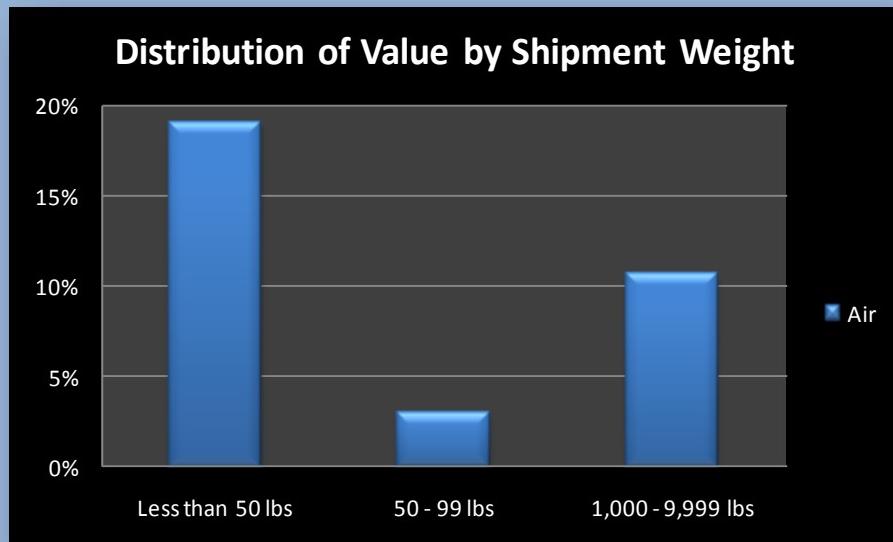
Shipment values and tonnage for all modes combined increased in Missouri by roughly 20% over the five years surveyed. Missouri companies shipped nearly \$226 billion and 305 million tons of commodities throughout the U.S. Air shipments accounted for nearly 1% of the value and .0003% of the tonnage or an estimated \$1.2 billion and 79 thousand tons.

The Commodity Flow Survey combines all air related multimodal activity into one category, air freight. The most recent survey reports a decline in air shipping values (47%). Declines occurred in electronics components and parts and various other commodities. Dollar gains were found in basic chemicals and chemical products, pharmaceuticals, articles of base metal and miscellaneous manufacturing products.



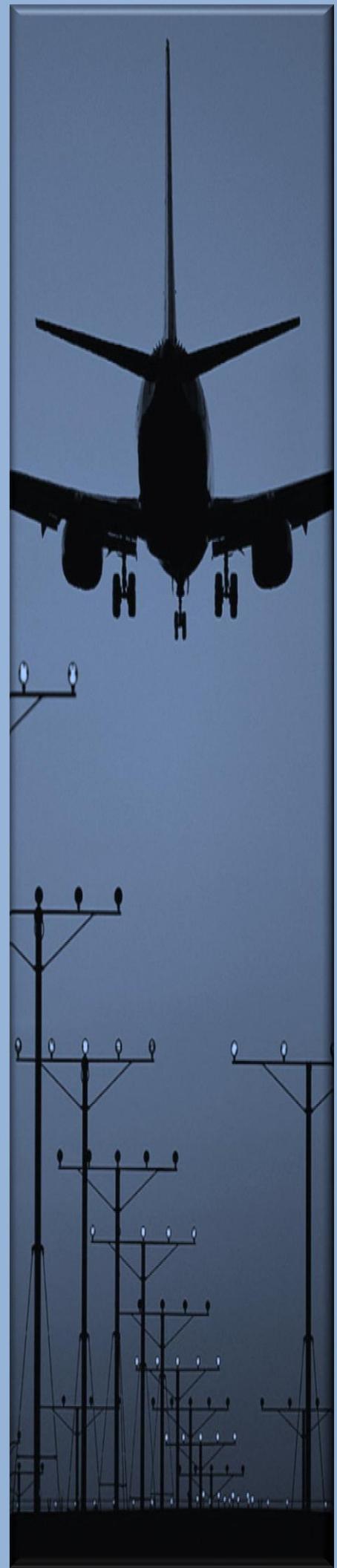
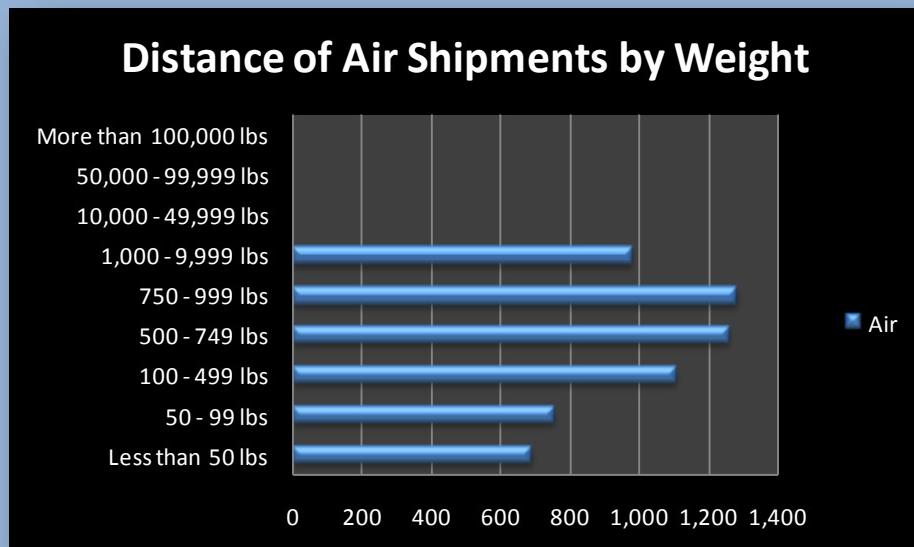
## Shipment Weights

The data for distribution of shipment weight by air mode is largely suppressed; however, one third of the value does fall within three categories. Shipments tend to be much lighter than with other modes with nearly 20% of the value weighing less than 50 pounds.

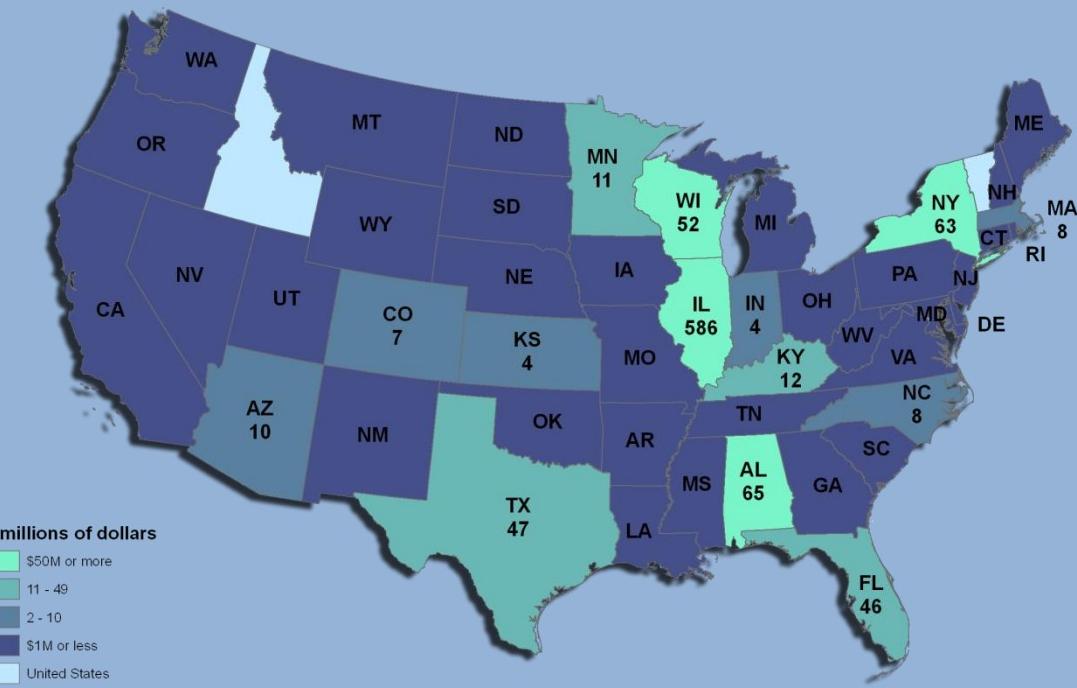


## Shipment Distance

Missouri air shipments average 717 miles to destination. Shipments weighing 750-999 pounds travel the furthest with an average distance of 1,284 miles. Shipments less than 50 pounds travel an average of 689 miles.

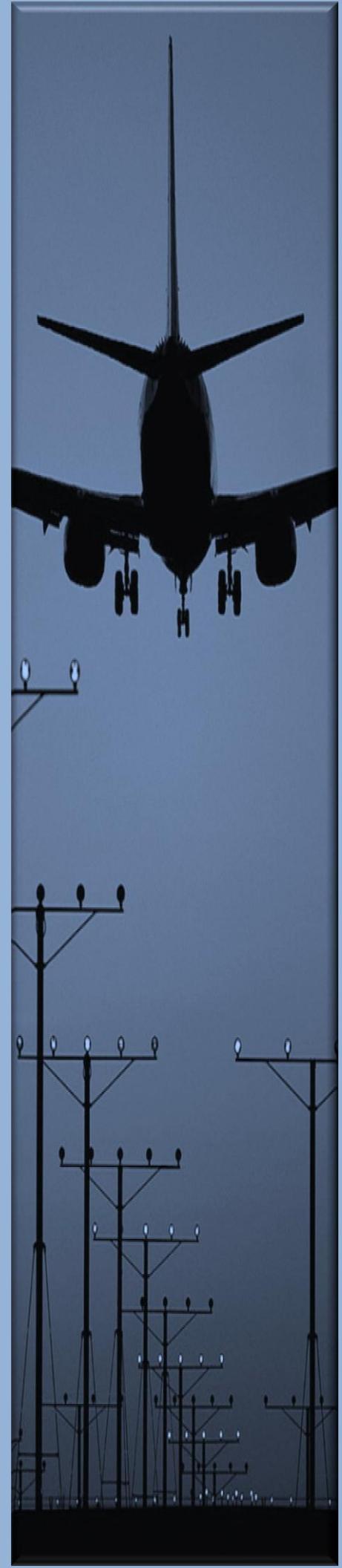


## Missouri's Air Shipments to States (\$M)

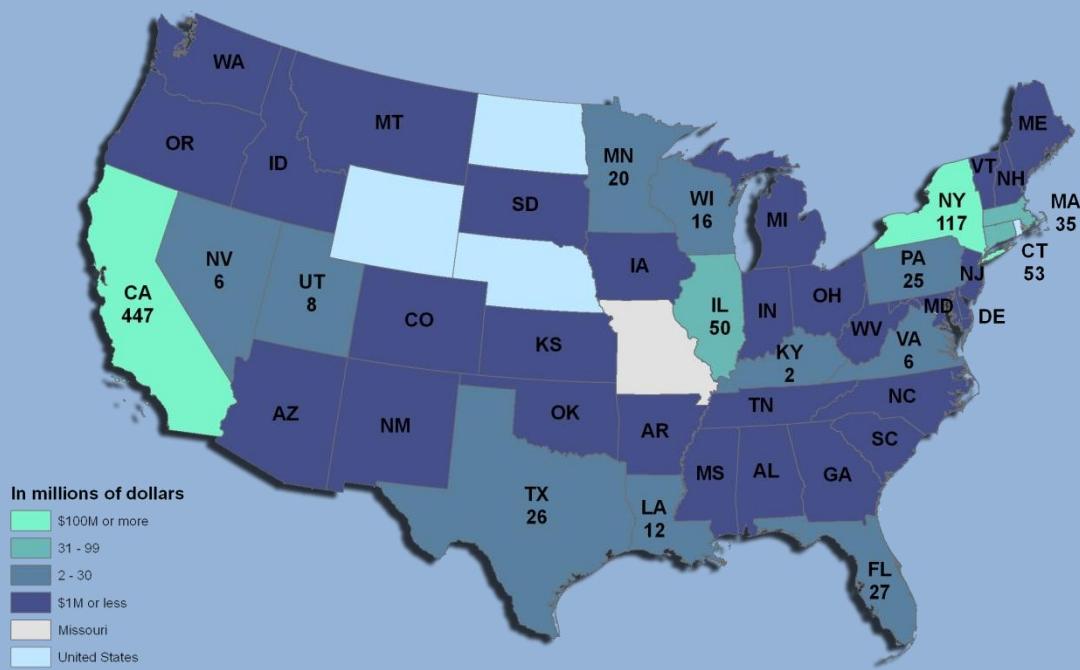


Missouri's higher value air shipments are distributed mainly to the east and Texas with Illinois receiving 51% of the total air shipment value. California receives the highest tonnage amount (14,000 lbs) from the state, nearly 18% of the total tonnage shipped by air.

Destination	Value(\$mil)
Illinois	586
Alabama	65
New York	63
Wisconsin	52
Texas	47
Florida	46
Kentucky	12
Minnesota	11
Arizona	10
Massachusetts	8

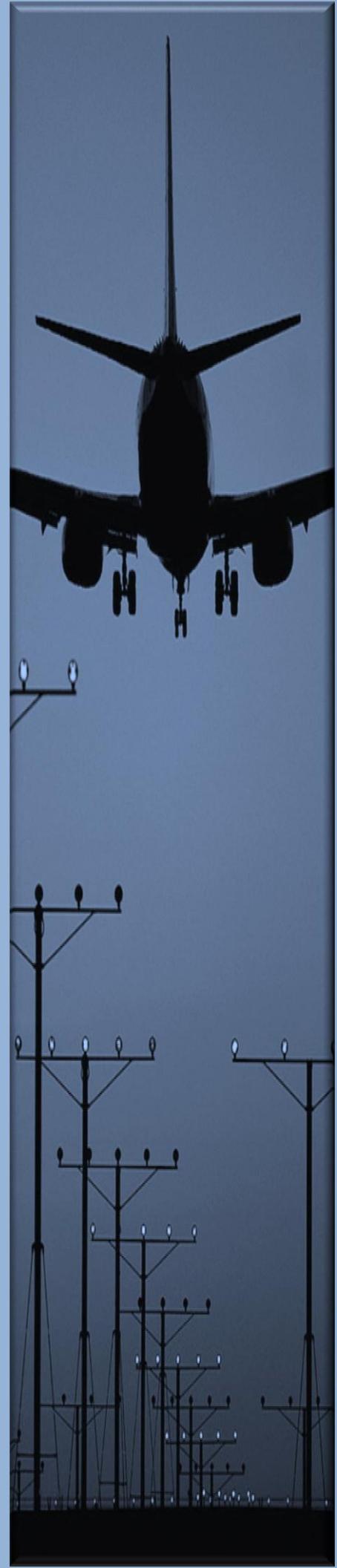


## Missouri's Air Imports from States (\$M)

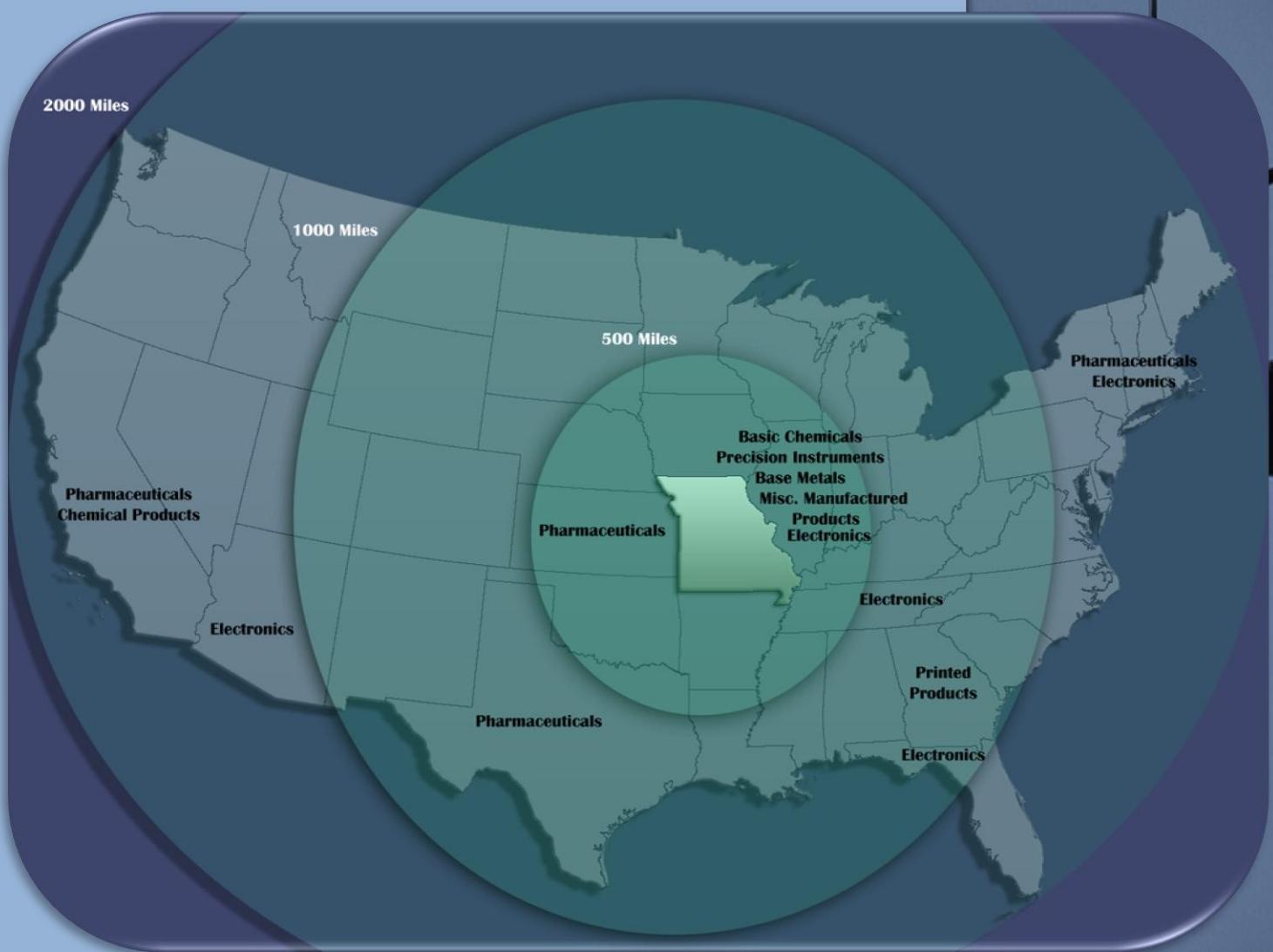


Missouri receives its higher value air cargo predominantly from major air hubs, located in California, New York, and Illinois. Higher tonnage shipments arrive from Illinois and Wisconsin.

Origin	Value(\$mil)
California	447
New York	117
Connecticut	53
Illinois	50
Massachusetts	35
Florida	27
Texas	26
Pennsylvania	25
Minnesota	20
Wisconsin	16



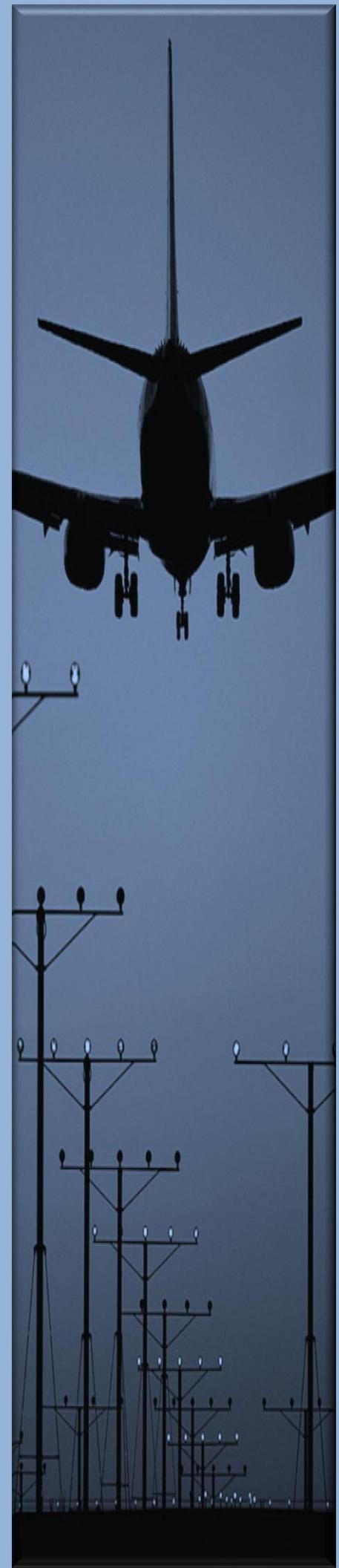
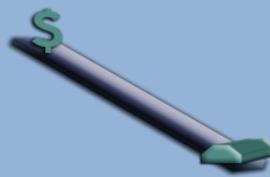
## Missouri's Top Air Shipments to States



Nearly \$1.2 billion in Missouri commodities are shipped by air freight modes. Higher value shipments average 994 miles to destination while higher tonnage shipments average 917 miles. Pharmaceuticals, basic chemicals, and electronic products make up 83% of the total value of Missouri commodities shipped by air. These higher dollar commodities predominantly move to the coasts and Illinois. Miscellaneous manufactured products, articles of base metal, and chemical products make up 11% of the total tonnage shipped from Missouri with the majority of tonnage from those products moving to Illinois and Texas.

## Top Missouri Commodities Shipped to States

<b>MO Commodities</b>	<b>Value(\$mil)</b>
Pharmaceutical products	720
Basic chemicals	131
Electronic & other electrical equipment	109
Miscellaneous manufactured products	77
Articles of base metal	63
Chemical products and preparations	54

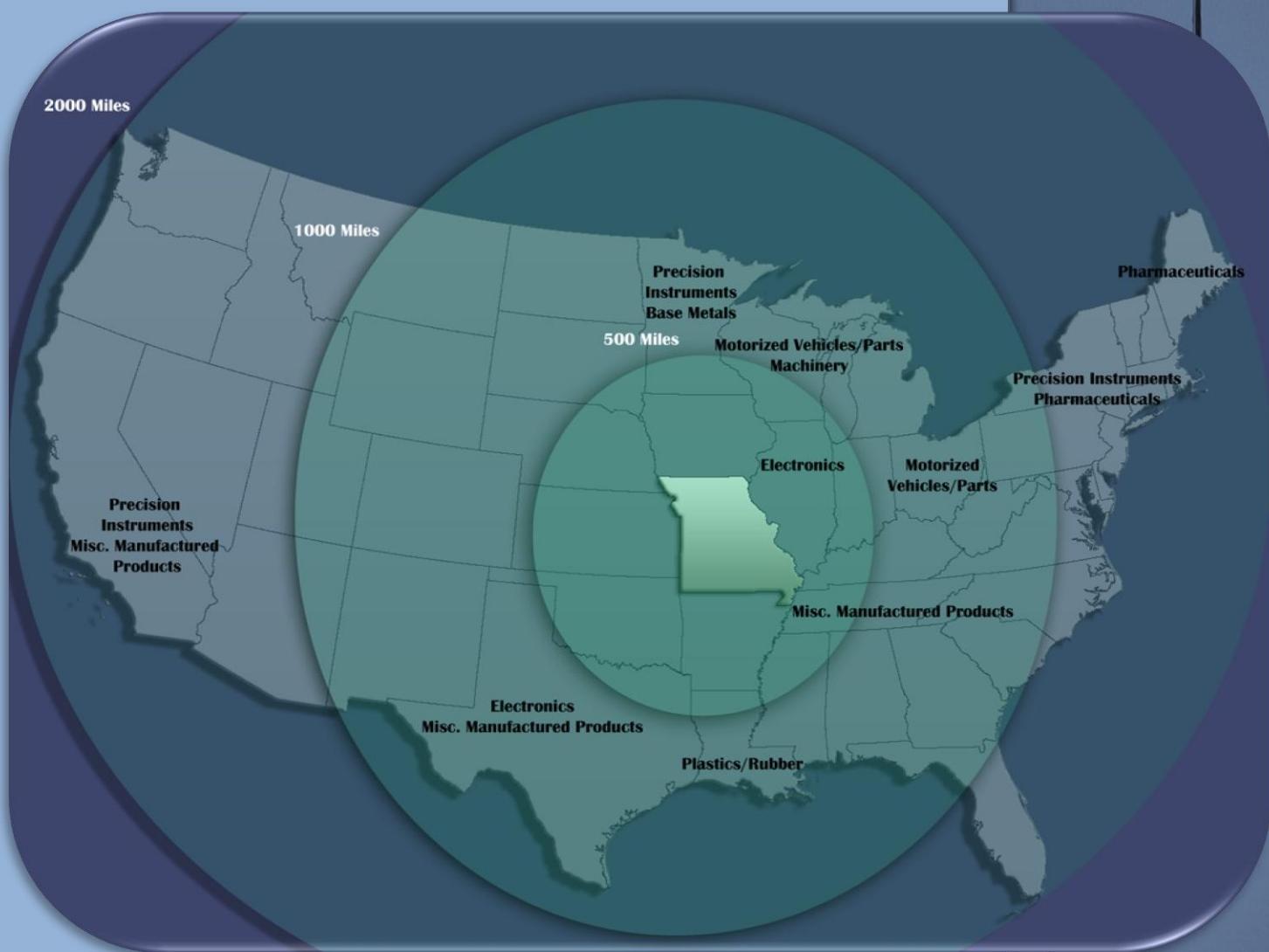


<b>MO Commodities</b>	<b>Tons (thous)</b>
Miscellaneous manufactured products	5
Articles of base metal	2
Chemical products and preparations	2

## Top Missouri Commodities Shipped from States

<b>MO Imported Commodities</b>	<b>Value(\$mil)</b>
Precision instruments and apparatus	66
Pharmaceutical products	20
Electronic & other electrical equipment	12
Miscellaneous manufactured products	11
Motorized and other vehicles (including parts)	8
Articles of base metal	2
Plastics and rubber	2
Machinery	1

## Missouri's Top Air Shipments from States



More than \$850 million in commodities are shipped to Missouri by air freight modes. Higher value shipments average 1,246 miles. Precision instruments and pharmaceutical products represent the highest value of air freight commodities consisting of 11% of the total reported Missouri import value. Shipments of these two products arrive almost entirely from California and New York. Tonnage information was suppressed at the commodity level for air freight imports.

## Transportation Enhancements – Air Freight

### *Scenario: International Hub*

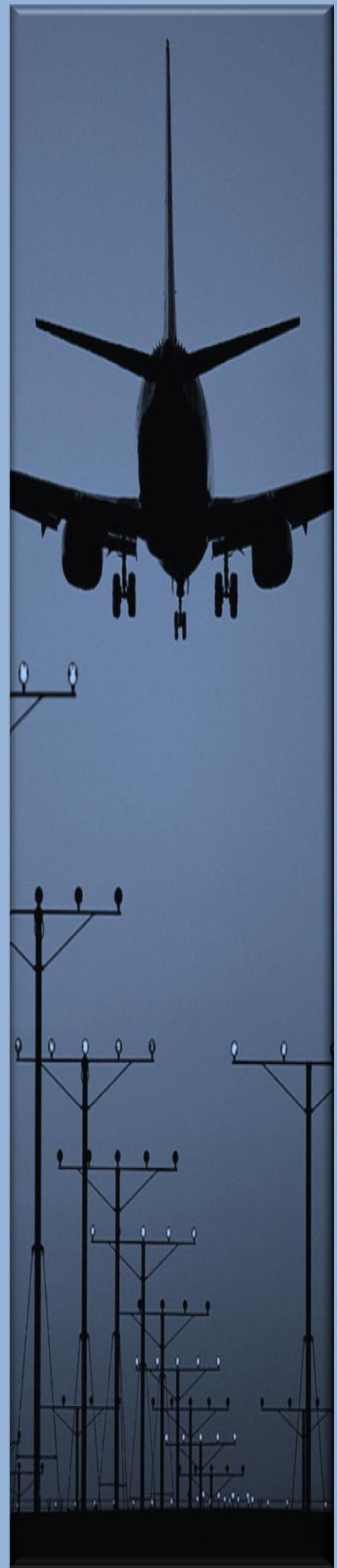
In March 2008, a joint study was undertaken by China, Missouri, the City of St. Louis, and the County of St. Louis to assess the potential of Lambert-St. Louis International Airport to become a Chinese air freight and passenger hub (the “Freight Hub Initiative”). Recent data shows that Missouri is the state that is most rapidly growing in exports to China within the Federal Reserve’s 9th District.

RCGA, The Missouri Partnership, and the leadership of Lambert-St. Louis Airport, with the Hub Commission, have completed two studies of freight traffic between China and St. Louis. The first study determines the amount and type of air freight currently from Midwestern shippers (the Backhaul Study). The second study works with freight forwarders to determine further detail about the origin and destination of these products (the Freight Forwarder Study).



The key findings of the Backhaul Study indicate that roughly 45 million kilograms of cargo is shipped by air to China from the catchment areas of St. Louis every year. If all this were shipped through Lambert-St. Louis and Mid America St. Louis Airports that would equate to two fully-loaded 747 cargo planes per day for the entire year.

The Freight Forwarder Study also found that a large diversity of goods are being shipped from several different airports; that many of these goods are being hauled long distances by truck to be flown from airports that are more distant than St. Louis; and that with a coordinated effort including air, ground and transportation support Lambert-St. Louis and Mid America St. Louis Airports can become a viable international Global Logistics Center connecting China, the US and South America.



## Sources

U.S. Census, American Fact Finder Commodity Flow Survey  
Regional Economic Models Incorporated  
TREDIS Transportation Modeling  
MoDOT, Missouri Aviation Facts  
Midwest China Hub Commission, "The Big Idea, Opening the Gateways",  
Spring 2009  
U.S. Bureau of Labor Statistics, Quarterly Census of Employment and  
Wages

## Note

The recent release of the American Fact Finder *Commodity Flow Survey* by the U.S. Census describes the values, tonnage, and distance of state to state shipments. The information updates a 2002 survey and includes detailed estimates by modal activity (truck/barge/rail/air), commodity, and industry. Intermodal activities (ie. truck and water, water and rail) are also estimated using this survey. Total value for air freight shipments was suppressed at the state level; estimates were performed using reported data from single modes and commodity detail. While origins and destinations are cited in this report, data collection limitations measure the origin of movement and may not represent the commodity origin of production or final destination of the commodity.

Prepared by Tony Brite

